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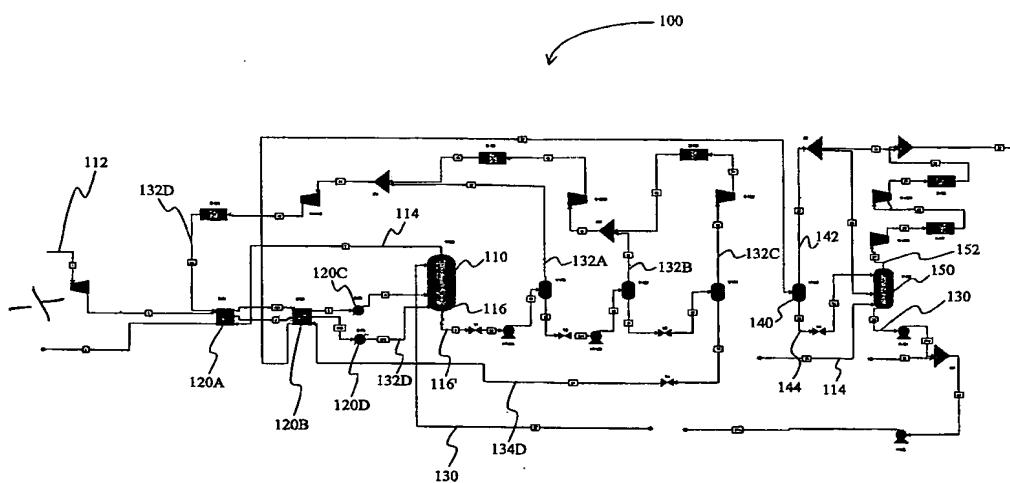
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(57) Abstract: An absorber (110) in a gas treatment plant (100) produces a rich solvent (116) that is flashed to produce flashed rich solvent (134D) and recycle gas (132D), wherein the recycle gas (132D) is not mixed with the absorber feed gas (112) as commonly practiced, but mixed with the rich solvent (116). Such configurations exhibit superior rich solvent loading, thereby reducing solvent circulation. Further contemplated gas treatment plants (100) may also include a regenerator (150) in which carbon dioxide from atmospheric flashed vapor (142) of the rich solvent (144) is employed as a stripping gas in a regenerator (150) to strip hydrogen sulfide from the rich solvent (144), and wherein sweet gas (114) is employed to strip the carbon dioxide from the rich solvent (144).